7. COMMUNAL ROOSTING IN THE MYNAH *ACRIDOTHERES TRISTIS*

Sengupta (1973) concluded that communal roosting in the Common Myna, *Acridotheres tristis* (L.) had evolved primarily as an anti-predator adaptation. He considered that communal roosting was of no advantage with respect to food location in this species because the birds he studied fed either individually (in towns) or in small parties (in country areas), rather than in large flocks, although he found that Mynas did flock when food became locally abundant. This range of feeding dispersion patterns is found in many omnivorous species, and is related to the kind of food that is available at any moment. Thus Cattle Egrets *Bubulcus ibis* feeding on insects or chasing seabirds to make them regurgitate their last meal do so singly or in small parties, but when food becomes locally abundant, e.g. at refuse dumps, they feed in loose flocks (Feare 1975). Similarly Rooks *Corvus frugilegus* feed in large dense flocks in the winter while feeding on grain, but feed in smaller, widely dispersed groups when they feed on soil invertebrates in the summer. Patterson *et al.* (1971) thought that this wider dispersion within small groups reduced interference between individual birds feeding on invertebrates that could take avoiding action. Even in the summer, however, Rooks roosted communally, and when unpredictable local abundances of food did appear large numbers of birds quickly assembled there (Feare *et al.* 1974). Furthermore, it seemed likely that communal roosting helped birds to discover these local abundances when they did occur, and Feare *ea al.* (1974) obtained circumstantial evidence that large winter roosts helped birds to find food in unfamiliar feeding grounds when their usual feeding areas were rendered unavailable due to unpredictable falls of snow. Ward & Zahavi (1973) stressed that large communal roosts may exist even when all members of the roost are adequately fed, but could act as an insurance against any unpredictable food shortage affecting part of the population. Solitary feeding in birds that roost communally, and which will feed in flocks if suitable food is available, need not therefore negate the hypothesis that communal roosting has evolved as a method of disseminating information about food distribution. Both Ward & Zahavi (1973) and Feare *et al.* (1974) regarded this as the main function of communal roosts, but noted that these assemblages of birds could attract predators, and therefore required protected positions for the inactive period and anti-predator behaviour while the birds were assembling.

In 1972-73 I made observations on Mynas in the Seychelles which suggest that the food location hypothesis does apply to roosts of this species. Mynas were introduced to the Seychelles, probably in the early nineteenth century (Gaymer *et al.* 1969) and have become successful colonisers of many of the islands. On Mahé, the largest island of the group, Mynas are common except in the highest forest. In lowland areas they fed singly and in small parties in plantations and other fairly open habitats, but assembled in larger flocks at refuse tips and on ripe fruit trees where they caused damage. In secondary forest on higher ground they appeared to be mainly furgivorous, and fed in flocks on the ripe fruits of guavas *Psidium* sp., mangoes *Mangifera indica,* Santol *Sandoricum indicum,* bois rouge *Dillenia ferruginea,* etc. although they also fed in smaller groups in open grass-

land, in tea plantations and occasionally on breadfruit *Artocarpus altilis* and jackfruit *A. heterophyllus* which had been crushed on roads. In these situations their food was loalised in both space and time, and on Mahé communal roosts were conspicuous by their noise both in the towns and villages and in the mountains. Potential predators at these roosts included rats *Rattus rattus,* Barn Owls *Tyto alba* and occasional migrant falcons.

On Bird Island, on the other hand, no communal roost of Mynas was found during a total of 10 months residence on the 70 ha. island, most of this period being out of the birds breeding season (Feare in prep.). Although no estimate of the population was obtained, there were probably well over 100 birds on the island. Apparently suitable trees (e.g. *Ficus* sp., *Cordia subcordata, Guettarda speciosa*) were present, though not widespread. Rats were abundant but very recently introduced (1967), and both Barn Owls and migrant falcons occasionally visited Bird Island. The main difference between the two islands in terms of Myna ecology appeared to lie in the distribution of food, which on Bird Island appeared to consist mainly of insects (and possibly seeds) and ripe pawpaws *Carica papaya.* The insects were obtained from open areas within the coconut plantation, and from treeless areas such as the airstrip, and also the Sooty Tern *Sterna fuscata* colony once this was vacated by the terns. Pawpaw trees were also widely distributed within the coconut plantation, and there were no localised concentrations of ripe fruit. The only time that a flock of 10-20 Mynas was seen when I put out large quantities of rice to attract Madagascar Fodies *Foudia madagascariensis* —the fodies, which did roost communally, rapidly discovered the rice and a large flock formed, but the assembly of Mynas was slower, and they appeared to be attracted by the fodies.

These observations on Mynas in the Seychelles thus support the hypothesis that communal roosting is related to food distribution in this species. The solitary feeding frequently seen by Sengupta (1973) and myself is most likely related to the type of food available at the time, but the birds continue to roost communally as this helps them to utilize the local abundances of food that periodically occur. The apparent absence of communal roosting on Bird Island is remarkable since Fryer (1910) did not mention the Myna in a list of species that occurred there, and it has presumably reached Bird Island very recently.

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8. OCCURRENCE OF FINN'S BAYA (*PLOCEUS MEGARHYNCHUS* HUME) IN DARRANG DISTRICT, ASSAM

(*With a photograph*)

The Finn's Baya, *Ploceus megarhynchus* Hume, has always been a subject of great interest to the ornithologists for its alleged rarity.

It was first obtained from Kaladoongi, Naini Tal District, U.P., by its describer A. O. Hume in December 1866. In 1901, Frank Finn obtained birds in breeding plumage from a Calcutta bird dealer, said to have come from Naini Tal. Later, in 1912, H. V. O'Donel found for the first time its breeding colony in Bhutan Duars (= Hasimara, Jalpaiguri District, W.B.), and obtained some birds too.

During the next four decades, though a few birds turned up from time to time in the Calcutta bird market, their exact provenance was not known. It was, therefore, supposed to be very rare and an endangered species.

In 1934, Sálim Ali undertook a special expedition to Kaladoongi but his mission failed to locate the bird or to procure any workable clue concerning its whereabouts. Again, in 1953, Sálim Ali and H. Alexander made a second fruitless quest there. But in 1959 (July-August) Sálim Ali and J. H. Crook rediscovered the species with its breeding colonies in the Rampur and Haldwani districts, U.P. (Ali & Crook 1959). Later, V. C. Ambedkar revisited the area and studied its breeding habits (Ambedkar 1968). In eastern India, after O'Donel, W. Koelz obtained specimens from Agia, Goalpara District, Assam, and they were separated into an eastern subspecies, *Ploceus megarhynchus salimalii*, by H. Abdulali (Abdulali 1960). Saha reported on its occurrence, and described its nests, eggs and chicks in a breeding colony in the Salt Lakes near Calcutta (Saha 1967), presumably formed by escapees from the Calcutta bird market.

During a recent field trip in Darrang District, Assam, a colony of the Finn's Baya was found by me near Dharamjuligarh area, some 100 km north of Rangia Railway station on 5 June 1975.

The habitat is typically duars, in the foothills region. The area is a grassland, dominated by Elephant grass, periodically burnt during the dry seasons. Much of the land has